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# PROFILE HOLDER

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DOUBLE CLAMP TYPE HOLDER FOR COPYING

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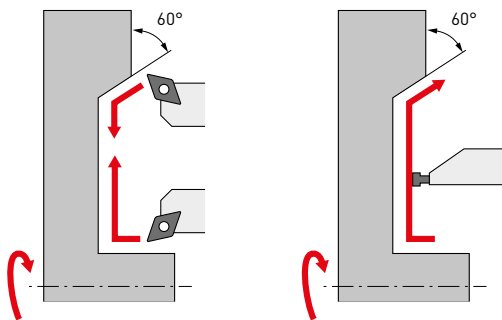
# PROFILE HOLDER

## DOUBLE CLAMP TYPE HOLDER FOR COPYING

25° rhombic insert for profile machining up to a 60° inclination.

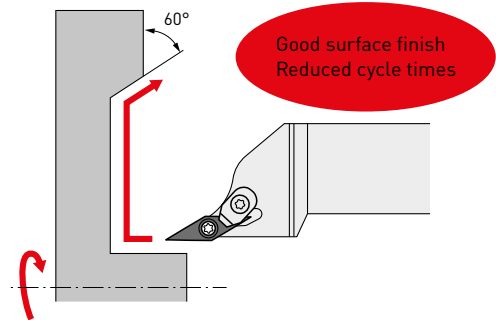
### CONVENTIONAL

2 operations required or a custom made tool.



### PROFILE HOLDER

Turning, facing and taper facing can be carried out in one process.



### HOLDER

Use of a highly reliable double clamp system.

- Use of the shallow-depth clamp bridge ensures that coolant reaches the cutting edge.



### INSERTS

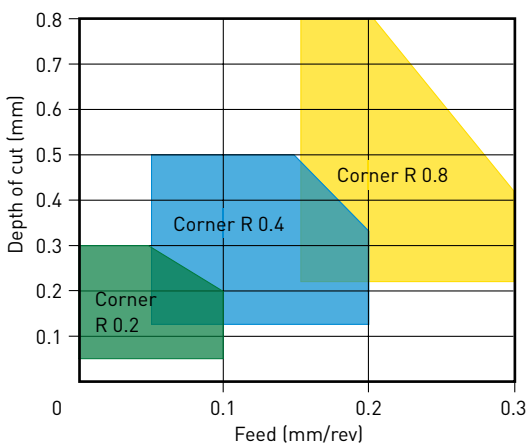
Chip control is improved by having a chip breaker geometry suitable for copying.

- Narrow protrusion gives excellent chip disposal.



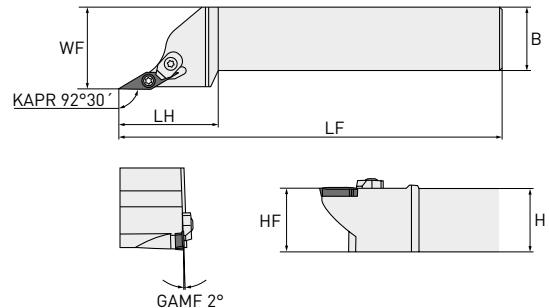
- Curved edge effective for back turning.

### APPLICATION RANGE



# PROFILE HOLDER

## DOUBLE CLAMP TYPE HOLDER FOR COPYING









## HOLDER

Order number	Stock		Insert number	H	B	LF	LH	HF	WF
	R	L							
SXZCR/L1616H15	●	●	1503○○-SVX	16	16	100	35	16	20
SXZCR/L2020K15	●	●	XCMT 1503○○-SVX	20	20	125	35	20	25
SXZCR/L2525M15	●	●	1503○○-SVX	25	25	150	40	25	32





## SPARE PARTS

Order number	 *		 *			
	Clamp screw	Clamp bridge	Clamp bridge screw	Spring	Wrench (Insert)	Wrench (Clamp bridge)
SXZCR/L1616H15						
SXZCR/L2020K15	TS255	AMS3	AJS3010T10	ASS2	TKY08F	TKY10F
SXZCR/L2525M15						

\* Clamp torque (N • m): TS255 = 1.0, AJS3010T10 = 2.5

## INSERTS

Order number	RE	Cutting conditions			Shape
		UE6020	MC6125	VP15TF	
XCMT150302-SVX	0.2	●	●	●	 
XCMT150304-SVX	0.4	●	●	●	
XCMT150308-SVX	0.8	●	●	●	

# PROFILE HOLDER

## RECOMMENDED CUTTING CONDITIONS

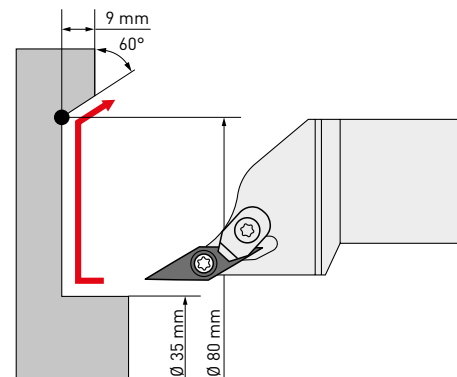
Material	Properties	Grade	Vc
P Mild steel	≤180HB	UE6020	250 (150 - 350)
		MC6125	340 (240 - 400)
Carbon and alloy steel	150 - 250HB	UE6020	175 (100 - 250)
		MC6125	220 (160 - 280)
M Stainless steel	≤200HB	VP15TF	100 ( 70 - 120)
K Cast iron	< 350Mpa	VP15TF	170 (140 - 200)



# PROFILE HOLDER

## APPLICATION EXAMPLES

Workpiece	DIN Ck45
Insert	XCMT150304-SVX
Grade	UE6020
Holder	SXZCR2525M15
Axial direction	Vc = 200 m/min, Depth of cut = 0.2 mm, Feed = 0.05 mm/rev, Wet cutting
To end face, 30° face	Vc = 200 m/min, Depth of cut = 0.2 mm, Feed = 0.2 mm/rev, Wet cutting



## CHIP GEOMETRY

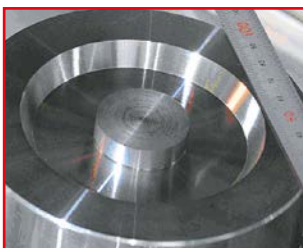


Facing



Facing an inclination

## Smooth surface



Surface finish

2 passes with left and right hand tool holders are needed when conventional machining. With the profile holder only a single operation is required. Reduced cycle time and better surface finish is achieved because of improved chip control.

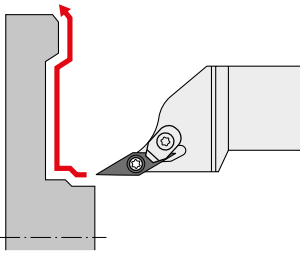
# PROFILE HOLDER

## OPERATIONAL GUIDANCE

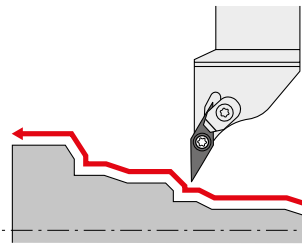
### POSSIBLE

#### END FACE COPYING

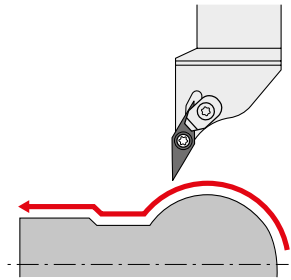
When end face copying, refer to the precautions below.



#### EXTERNAL COPYING



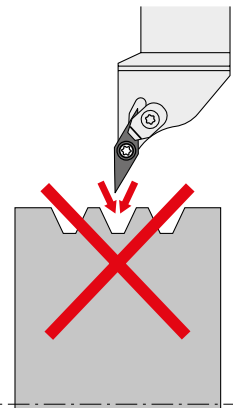
#### PROFILE TURNING



### NOT POSSIBLE

#### MACHINING OF V-PULLEYS

When machining V-pulleys, use a VNMG insert.



### NOTES WHEN END FACE COPYING

#### PAY SPECIAL ATTENTION TO THE FOLLOWING WHEN FACE COPYING:

##### 1. MACHINING OF AN OUTER DIAMETER

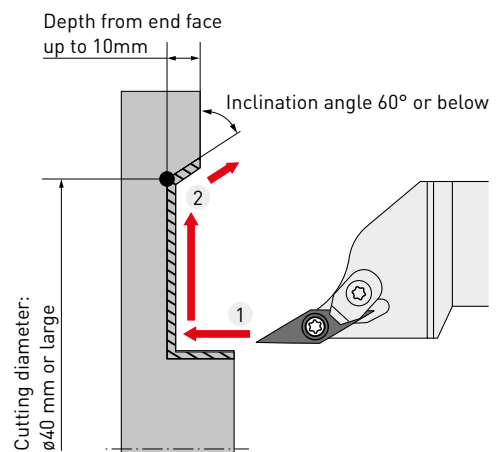
- To prevent burr formation, the depth of cut should be below half the nose radius.

##### 2. MACHINING OF AN INCLINATION

- To reduce the contact length of chips, the depth of cut should be below half the nose radius.
- To prevent interference between the tool and the workpiece, the cutting diameter should be 40 mm or larger, inclination angle 60° or below and depth from the end face up to 10 mm.

##### 3. WHEN CHANGING INSERTS

- When indexing the inserts, it is recommended to reset the cutting edge position to maintain machining accuracy.





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